the coupled emitters. For the multipliers 10 shown in Figures 5a and 5b the following applies to the currents I_1 to I_4 flowing through the transistors T_1 to T_4:

$$I_4 = \frac{I_1}{I_3} \cdot I_2$$

REMARKS

The amendment to the above paragraph corrects a translation error in the formula the nature of which would have been apparent to those skilled in the art. It is respectfully requested that this amendment be entered.

Respectfully submitted,

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MARK-UP VERSION OF AMENDMENTS

[0044] Figures 5a and 5b each show a diagram of one version of an analog scaling unit 8, especially the multiplier 10 of the electrical transducer 1. The two shown multipliers 10 are each made as a single-quadrant multiplier which is characterized in that all input voltages must be positive and may not become zero. The multipliers 10 each have an even number of transistors 15, by which temperature-induced deviations of the transistors 15 can be better compensated. It is especially advantageous if a monolithic transistor array 17 is used as the multiplier 10, by which the voltage equivalents of thermal energy U_T and the temperature-dependent blocking currents I_S cancel one another, so that the correction factor m becomes "one." To implement the multiplier 10 only transistors T_1 to T_4 are necessary, while transistors T_5 and T_6 are integrated in the transistor array 17 by the manufacturer and are used for difference amplifier applications, but here are used only as current sink access to the coupled emitters. For the multipliers 10 shown in Figures 5a and 5b the following applies to the currents I_1 to I_4 flowing through the transistors T_1 to T_4:

$$[I_4 = \frac{I_1}{I_3} \cdot 2] \qquad \underline{I_4 = \frac{I_1}{I_3} I_2}$$